### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Douglas G. Vanderlaan et al.

Serial No. : Art Unit: 1712

Filed: February 28, 2002 Examiner:

For : OPTICALLY TRANSPARENT HYDROGELS AND PROCESSES

FOR THEIR PRODUCTION

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February 28, 2002

(Date)

Ruby T. Hope

Name of applicant, assignee, or Registered Representative

(Signature)

February 28, 2002

(Date of Signature)

Commissioner for Patents Washington, D.C. 20231

# Amendments Under 35 U.S.C. § 251 and Statements of Support For All Changes to the Claims

Dear Sir:

An application for of Reissue of U.S. Pat. No. 6,031,059 issued on February 29, 2000 (hereinafter "'059 ") is attached herewith. A copy of '059, a Reissue Application Declaration by the Assignee, and a Preliminary Amendment are attached herewith. A statement supporting amendments to the claims under 35 U.S.C. § 251 follows below.

#### Amendments Under 35 U.S.C. § 251

Please amend claims 3 and 10 as follows:

3. (Once amended) The process of claim 2 wherein the hydrophobic siloxane monomer is of the formula:

wherein  $R^{19}$  and  $R^{20}$  are each independently hydrogen or methyl,  $R^{21}$ ,  $R^{22}$ , and  $R^{23}$  are each independently a monovalent alkyl of 1 to 5 carbon atoms or aryl, j = 1 to 10 and k = 0 to 3.

10. (Once amended) The hydrogel of claim 9 wherein the hydrophobic siloxane monomer is of the formula:

wherein  $R^{19}$  and  $R^{20}$  are each independently hydrogen or methyl,  $R^{21}$ ,  $R^{22}$ , and  $R^{23}$  are each independently a monovalent alkyl of 1 to 5 carbon atoms or aryl, j = 1 to 10 and k = 0 to 3.

#### **Statements**

Substituent "X" of formula II is never explicitly defined in the specification or claims of the application. See '059 column 3, lines 57-58, defining all other substituents of Formula II; claims 3 and 10. Formula II is defined by the specification as a siloxane monomer. See '059 column 3, lines 23-24. The preferred siloxane monomers are

"3-methacryloxypropyltris(trimethylsiloxy)silane" and

"3-methacryloxypropylbis(trimethylsiloxy)methylsilane." See '059 column 3, lines 38-39. These preferred siloxane monomers contain an oxygen position at the point of substituent "X." Therefore Applicants respectfully submit that the requested amendments to claims 3 and 10 do not add new matter to this reissue application.

In addition to the change to substituent "X" the points of attachment for both "R<sup>22</sup>"s are revised in Claims 3, and 10. The structure in the depicted patent where R<sup>22</sup> is attached to oxygen is incorrect and was a typographical error.

In light of the foregoing amendments and statement Applicants respectfully submit that claims 3 and 10 are in condition for allowance. In light of the attached Preliminary Amendment and Remarks Applicants respectfully solicit a notice of allowance for all pending claims. A "Version With Markings to Show

Changes Made Under 35 U.S.C. § 251" is attached. If the Examiner believes that in interview would expedite the disposal of this case, the Examiner is invited to contact the undersigned attorney by telephone (732-524-1024).

Respectfully submitted,

Ruby T. Hope

Attorney for Applicants

Reg. No. 34,350

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## Version With Markings to Show Changes Made Under 35 U.S.C. § 251

3. (Once amended) The process of claim 2 wherein the hydrophobic siloxane monomer is of the formula:

$$\begin{bmatrix} R^{20} & (R^{21})_k & R^{22} \\ C(R^{19})_2 & O - (CH_2)_j - Si - R^{23} \\ R^{22} & R^{23} \end{bmatrix}_{3-k}$$

wherein  $R^{19}$  and  $R^{20}$  are each independently hydrogen or methyl,  $R^{21}$ ,  $R^{22}$ , and  $R^{23}$  are each independently a monovalent alkyl of 1 to 5 carbon atoms or aryl, j = 1 to 10 and k = 0 to 3.

10. (Once amended) The hydrogel of claim 9 wherein the hydrophobic siloxane monomer is of the formula:

(II)

$$\begin{bmatrix} R^{20} & (R^{21})_k & R^{22} \\ C(R^{19})_2 & O - (CH_2)_j - Si - R^{23} \\ R^{22} & R^{22} \end{bmatrix}_{3-k}$$

$$C(R^{19})_{2} = 0 - (CH_{2})_{j} - Si - 0 - Si - R^{23}$$

$$R^{20} = 0 - (CH_{2})_{j} - Si - 0 - Si - R^{23}$$

$$R^{22} = 0 - Si - R^{23}$$

$$R^{22} = 0 - Si - R^{23}$$

$$R^{22} = 0 - Si - R^{23}$$

$$R^{23} = 0 - Si - R^{23}$$

$$R^{24} = 0 - Si - R^{24}$$

wherein  $R^{19}$  and  $R^{20}$  are each independently hydrogen or methyl,  $R^{21}$ ,  $R^{22}$ , and  $R^{23}$  are each independently a monovalent alkyl of 1 to 5 carbon atoms or aryl, j = 1 to 10 and k = 0 to 3.

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#### **Preliminary Amendment**

Dear Sir:

A copy of U.S. Pat. No. 6,031,059 issued on February 29, 2000 (hereinafter " '059 ") and an application for Reissue thereof are attached herewith. In addition, a Reissue Application Declaration by the Assignee, Amendments under 35 U.S.C. § 251 and a Statement Supporting Amendments under 35 U.S.C. § 251 are attached. This Preliminary Amendment contains typographical amendments to the specification and the claims. Please amend the application as follows:

#### In the Specification:

Replace the figure on column 3, lines 26-31 with the following figure

$$\begin{array}{c|c} & R^{20} & (R^{21})_k & R^{22} \\ O & (CH_2)_j - Si & O - Si - R^{23} \\ C(R^{19})_2 & R^{22} & \\ \end{array} \right]_{3-k}$$

Replace the figure on column 3, lines 51-55 with the following figure

#### In the Claims:

5. (once amended) The process of claim 1 or 3 wherein the hydrophobic siloxane prepolymer is of the formula:

(I)
$$C(R^{1})_{2} \xrightarrow{R^{1}} O - (CH_{2})_{n} - Si \xrightarrow{R^{1}} \left(O - Si \xrightarrow{R^{2}} O - Si \xrightarrow{R^{2}} (CH_{2})_{n} - O \xrightarrow{R^{1}} C(R^{1})_{2}$$

wherein  $R^1$  is hydrogen or an alkyl of 1 to 5 carbon atoms,  $R^2$  is an alkyl of 1 to 5 carbon atoms, n = 1 to 12, and z = 1 to 500 and the silylated hydrophilic monomer is of the formula:

wherein  $R^{24}$  is hydrogen or methyl,  $R^{25}$  is hydrogen or methyl, and  $R^{26}$  is a monoalkyl.

12. (once amended) The hydrogel of claim 8 or 10 wherein the hydrophobic siloxane prepolymer is of the formula:

$$C(R^{1})_{2} \xrightarrow{R^{1}} O - (CH_{2})_{n} - Si \xrightarrow{R^{1}} \left(O - Si - Si - (CH_{2})_{n} - O -$$

wherein  $R^1$  is hydrogen or an alkyl of 1 to 5 carbon atoms,  $R^2$  is an alkyl of 1 to 5 carbon atoms, n = 1 to 12, and z = 1 to 500 and the silylated hydrophilic monomer is of the formula:

wherein  $R^{24}$  is hydrogen or methyl,  $R^{25}$  is hydrogen or methyl, and  $R^{26}$  is a monoalkyl.

#### **Remarks**

The amendments to Formula II and III are to correct typographical errors and to address the amendments under 35 U.S.C. § 351 as disclosed in the attached Statement Supporting Amendments under 35 U.S.C. § 251. The amendments do not add new matter to the pending reissue application.

A "Version With Markings to Show Changes Made in the Preliminary Amendment" is attached. If the Examiner believes that in interview would expedite the disposal of this case, the Examiner is invited to contact the undersigned attorney by telephone (732-524-1024).

Respectfully submitted,

Ruby T. Hope

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## Version With Markings to Show Changes Made in the Preliminary Amendment

column 3, lines 26-31

$$\begin{bmatrix} R^{20} & (R^{21})_k & R^{22} \\ C(R^{19})_2 & O - (CH_2)_j - Si - R^{23} \\ R^{22} & R^{22} \end{bmatrix}_{3-k}$$

Column 3, lines 51-55

#### In the Claims:

5. (once amended) The process of claim 1 or 3 wherein the hydrophobic siloxane prepolymer is of the formula:

$$(I)$$

$$C(R^{1})_{2} \xrightarrow{R^{1}} O - (CH_{2})_{n} - Si \xrightarrow{R^{1}} \left(O - Si \xrightarrow{R^{2}} O - Si \xrightarrow{R^{2}} (CH_{2})_{n} - O \xrightarrow{R^{1}} C(R^{1})_{2} \right)$$

wherein  $R^1$  is hydrogen or an alkyl of 1 to 5 carbon atoms,  $R^2$  is an alkyl of 1 to 5 carbon atoms, n = 1 to 12, and z = 1 to 500 and the silylated hydrophilic monomer is of the formula:

(III)

wherein  $R^{24}$  is hydrogen or methyl,  $R^{25}$  is hydrogen or methyl, and  $R^{26}$  is a [monoalkyl0000] monoalkyl.

12. (once amended) The hydrogel of claim 8 or 10 wherein the hydrophobic siloxane prepolymer is of the formula:

$$C(R^{1})_{2} \xrightarrow{R^{1}} O - (CH_{2})_{n} - Si \xrightarrow{R^{1}} \left(O - Si \xrightarrow{R^{2}} O - Si \xrightarrow{R^{2}} (CH_{2})_{n} - O \xrightarrow{R^{1}} C(R^{1})_{2} \right)$$

wherein  $R^1$  is hydrogen or an alkyl of 1 to 5 carbon atoms,  $R^2$  is an alkyl of 1 to 5 carbon atoms, n = 1 to 12, and z = 1 to 500 and the silylated hydrophilic monomer is of the formula:

wherein  $R^{24}$  is hydrogen or methyl,  $R^{25}$  is hydrogen or methyl, and  $R^{26}$  is a monoalkyl.